


Week ending September 26, 2008


Pad Abort-1 Progress




 The first weight check measurement on the Orion Crew Module test vehicle pathfinder was conducted in Dryden Flight Research Center's Shuttle Hangar. Air bearings arrived and the weight and balance proof of concept testing and practice lift took place with 3 air bearings. The Crew Module Lifting Fixture (CMLF) will be used for critical lift testing (Diagram right, photo above).

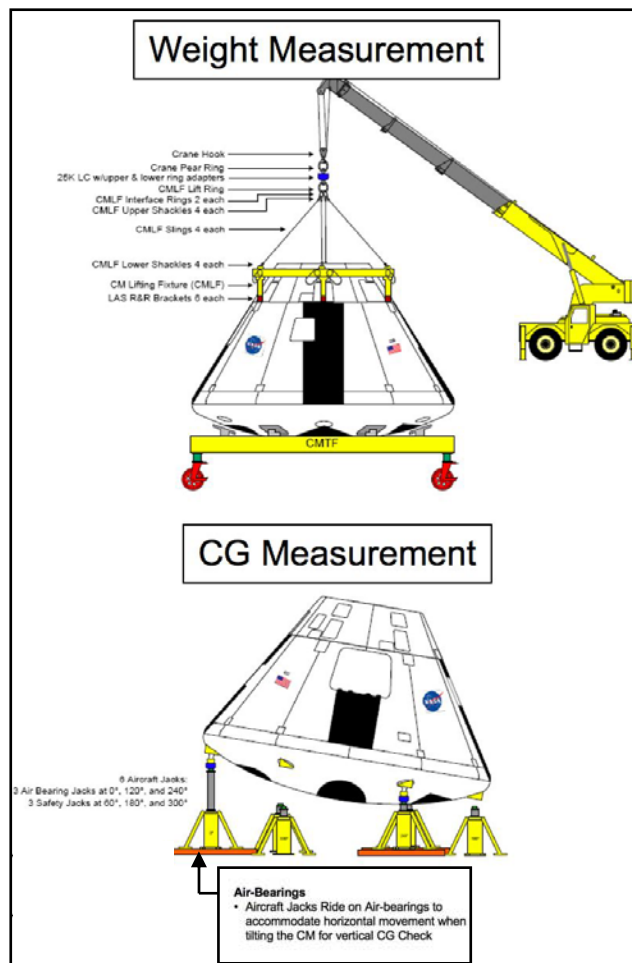


Forward Bay Cover installation at Dryden Flight Research Center (Photos above).

 The Pad Abort-1 composite canard interstage was successfully tested to protoflight levels (based on Combined Loads Analysis-5A coupled loads) at National Technical Services. This completes the protoflight static testing of all non-propulsive primary structure for Pad Abort-1.



 Six Launch Abort System (LAS) pathfinder adaptor feet were welded, inspected and fitted (Photo right). Adaptor feet bonding on the LAS pathfinder adaptor base began.



Abort Motor Steel Manifold received at ATK

Thermal Protection System (TPS)

All 12 TPS flow tests of the 1-inch TPS seal hybrid thermal barrier against alternate TPS materials are complete. Variations of heat shield materials and surface roughness show no significant effect on seal leakage when paired with the AETB-8 backshell material. These results contribute to the Heatshield Material Selection Team Review and TPS Transition Planning activities to be completed in October.

Service Module Power

The Yardney battery cell balance testing with nominal Low Earth Orbit (LEO) cycles was successfully completed. The cells showed an insignificant difference in voltages between the highest and lowest cells. In the next round of testing, two single cells will be discharged to create an imbalance in the battery. Following that, the battery will be placed back on test under a LEO cycling regime to evaluate the effectiveness of the Monitoring and Equalization Electronics boards that are responsible for monitoring the cell voltages to bring the cell voltages back in balance

White Sands Missile Range (WSMR) and Mobile Operating Facility (MOF) Test Facilities

The Command and Control Management System backend equipment, comprised of the Test Conductor Console System, Communications Backend (COM BE), TLM Data Processing System, Command and Control System and the printer rack, was installed into the MOF. All racks are receiving facility power.

Michoud Assembly Facility

All three overhead cranes passed facility checkout, proof loads and are now certified for use.



Universal Weld System #2

- Received turntable base and table center
- X-Rails installed and grouted in place (Photo left).

Kennedy Space Center Operations and Checkout Facility

Installation of the roof underlayment and roof caps on the low bay area is complete. As a result, Lockheed Martin completed the low bay ceiling repairs that resulted from Tropical Storm Fay. The high bay roof underlayment and caps are complete. The door seals for the east and west vertical doors were installed. The west door controls have been installed and the east door controls installation is in work.

The 18" thick concrete walls for the proof pressure cell were poured (Photo below). The forms were relocated to prepare for the pouring of the ceiling.